

Layered Materials Energy Storage Devices for Commercial products Graphite and 2D additive Anode Technology

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Li-ion batteries are presently being investigated and commercially implemented for energy storage applications such as electric vehicles, grid energy storage or storage for renewable energies. Much like other global platform technologies that came before microchips, batteries represent an enormous challenge and enormous opportunity for today's businesses. Get batteries right, and you can create a huge competitive advantage and trillions of dollars of value (see GM, VW, Tesla..). Get them wrong and face multi-billion dollar recalls and incalculable brand damage. It can be overwhelming trying to stay on top of these trends.

This webinar will focus on the following key topics:

- Batteries are impacting every technology application - representing both enormous challenges and opportunities. Basic Batteries knowledge.
- Simplify battery materials technology, particular Anode Batteries materials technology.
- Battery technology is constantly evolving. While lithium-ion batteries established market dominance, there is still enormous variation across form factors, chemical formulations, not to mention continuous improvements to enhance performance.
- Role of 2D materials as an additive and appropriate utilisation.
- Dendrite growth in lithium metal batteries leads to accelerated failure. SEI growth, breakage under excessive stress around dendrite tips and leads to rapid capacity deterioration. We discussed suppressing dendrites growth.

Biography

Dr Siva Bohm FRSC, (s.bohm@imperial.ac.uk) Chief Technology Officer-CAMI,
CAMI (Cambridge Advance Materials Innovation) Consultancy Ltd, UK

Siva Bohm has a passion for innovation and international collaborations, with technical expertise that includes batteries, materials science (Graphite, 2D Materials and Graphene) and nanotechnology. Siva has gained extensive experience in Li-ion battery anode technology & commercialisation working in the Li-ion battery industry. Siva worked two decades for the cooperate industry to take technology from lab scale to pilot production and commercial implementation of more than ten products. As Chief Technology Officer of CAMI and Chief Scientific Executive at Ceylon Graphite Corp., I focused on enabling Vein Graphite and additive content anodes using high energy density anode technology. With a PhD in Electrochemistry in Chemistry Bath Uni and a Master of Chemical Engineering – Berlin TU/TFH, Siva is skilled at leading technology development, and commercialisation with academic backed up IC, UCL etc.

